

**Remarks for the "RESPONSE TO NON-FINAL OFFICE  
ACTION DATED 6/15/2006"**

Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1, 3-8, 10-16, and 18-23 are presently pending. Claims 10 and 21 are amended. Claims withdrawn or cancelled herein are 2, 9 and 17. New claims added herein are none.

Herein, the "Action" refers to the Office Action to which this document is a response.

### **Formal Request for an Interview**

If the Office's response to this communication is anything other than allowance of all pending claims, then Applicant formally requests an interview with the Examiner of the present patent application. Applicant asks the Examiner to call and/or email me—the undersigned attorney for the Applicant—to schedule a convenient date and time for a telephone interview.

I would prefer an e-mail with an indication of a good day and time to call you back. Otherwise, you might consider calling me between noon and 7pm (Eastern Standard Time) on weekdays—since I am on the west coast. If you don't reach me by phone in my office, then please select to have your call forwarded to my mobile phone or, if you wish, call my mobile phone directly at 509-954-7213.

### **Claim Rejections under § 112**

The Office stated the following about claim 10:

Claim 10 recites the limitation “one or more modules the medium” in claim 8. There is insufficient antecedent basis for this limitation in the claim. Correction is required.

Applicant amends claim 10 to include a missing word: “of.” Applicant respectfully asks for the withdrawal of this rejection.

## **Substantive Claim Rejections**

### **Claim Rejections under § 101**

The Office rejects claims 21 as non-statutory under 35 U.S.C. §101. The Office indicates that “the claimed invention does not fulfill any of the disclosed utilities as in the specification, and not practical application as no beneficial final result for loading one or more executable images into a memory”.

Accordingly, Applicant has amended the claim to include an additional and final result for the “loading.” In particular, that additional and final result is the executing of the loaded images. Consequently, these claims are now statutory according to the Office’s interpretation of 35 U.S.C. §101 and, therefore, the Office should withdraw its rejection of these claims.

### **Claim Rejections under §103**

The Office rejects all of the pending claims under §103. For the reasons set forth below, the Office has not shown that the cited references disclose, teach or suggest (under §103) the rejected claims. Accordingly, Applicant respectfully requests that the rejections be withdrawn and the case be passed along to issuance.

The Office’s rejections are based upon the following references:

- **Bodrov:** *Bodrov*, U.S. Patent No. 6,802,006 (issued 10/5/2004);  
and/or
- **Wu:** *Wu et al.*, U.S. Patent No. 6,959,339 (issued 10/25/2005).

### Overview of the Application

For various reasons (e.g., promotion of backward compatibility or cross-platform compatibility), it is desirable for an operating system (OS) to load and execute otherwise non-native executable images. Such images have an otherwise unsupported format. The conventional approach is to modify the native loader (of the native OS) so that the native loader will recognize the otherwise unsupported format of an image and load it. Because of these modifications, a loader of such an OS is littered with hard code designed to identify, locate, map, and search out various formats of non-native images.

Also, it may be desirable for an OS to support the execution of images from multiple platforms by using a simulator/emulator. It might be impractical to know before shipping the OS what type of application that a user might simulate/emulate. With an exemplary extensible loader described in the Application, one can install a customized loader to extend OS features on the fly (i.e., without extensive loader redesign by a high level programming team—like that of the OS manufacturer).

### Cited References

The Office cites **Bodrov** as its primary reference in its obviousness-based rejections. The Office cites **Wu** as its secondary reference in its obviousness-based rejections.

Bodrov

**Bodrov** describes a system and method for verifying the authenticity of executable images. The system includes a validator that determines the reference digital signature for an executable image using the contents of the executable image excluding those portions of the executable image that are fixed up by a program loader. The validator then subsequent to the loading of the executable image determines an authenticity digital signature to verify that the executable image has not been improperly modified. In addition, the validator ensures that each of the pointers in the executable image has not been improperly redirected.

Wu

**Wu** describes a method, apparatus, and an article of manufacture for a computer implemented universal image format solution. Data is accessed at a server computer from a client computer connected to the server computer via network. The data is stored on a data storage device connected to the server computer. At the server computer, a request for data is received from the client computer. It is determined whether the client computer can access the data in its stored form. When it is determined that the client computer cannot access the data in its stored form, the data is converted into a form that the client computer can access. Then, a locator is returned to the client computer for locating the converted data.

## **Obviousness Rejections**

### **Lack of *Prima Facie* Case of Obviousness (MPEP § 2142)**

Applicant disagrees with the Office's obviousness rejections. Arguments presented herein point to various aspects of the record to demonstrate that all of the criteria set forth for making a *prima facie* case have not been met.

### **Based upon Bodrov and Wu**

The Office rejects claims 1, 3-8, 10-16, and 18-23 under USC § 103(a) as being non-patentable over **Bodrov** in view of **Wu**. Applicant respectfully traverses the rejections of these claims. Applicant asks the Office to withdraw its rejection of these claims.

Claim 1

On page 3 of the Action, the Office indicates the following with regard to this claim:

Regarding claim 1, Bodrov discloses: A computer-readable medium having computer-executable modules comprising:

a file locator configured to locate an executable image on a computer media (col. 4, lines 34-42, Bodrov);

a memory-mapper configured to open the executable image from the computer media and read it into a computer memory (col. 208, fig. 2 and corresponding text, Bodrov);

an importer configured to find a list of executable image names to load (col. 4, lines 61 to col. 5, lines 5, Bodrov);

a binder configured to link multiple executable images together, such images being those of the list of executable image names ((col. 4, lines 15-28, Bodrov);

an exporter configured to build a representation of program modules that an executable image exports (col. 5, lines 15-18, Bodrov);

a file-format recognizer configured to recognize the file format of the executable image from amongst a database file format definition (col. 4, lines 43-60, Bodrov).

Bodrov discloses: the database 108 have executable image 100 and executable image 200 as fig. 2. However Bodrov is silent to discloses: a database of multiple file format definitions. On the other hand, Wu discloses: discloses: a database of multiple file formats as col. 10, lines 40-48. Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include a database of multiple file formats in the system of Bodrov as taught by Wu. The motivation being to the operating system provide a digital library for storing multiple image file formats, the digital content can be recognized as authentic with these signatures, watermarks, a form of electronic signature currently in use throughout digital library solution.

Applicant respectfully submits that **Bodrov** and **Wu**, either alone or in combination, fail to disclose “a file-format recognizer configured to recognize the file format of the executable image from amongst a database of multiple file format definitions, wherein the database is extensible so that additional file format definitions may be added to the database of multiple file format definitions” as recited in claim 1. (Emphasis added).

The Office acknowledges that **Bodrov** does not disclose “a database of multiple file format definitions.” (Office Action, page 4). However, the Office indicates that **Wu** does disclose this. (Office Action, page 4). More specifically the Office appears to rely on the IBM digital library described in **Wu** as disclosing “a database of multiple file format definitions” as recited in claim 1. (Office Action, page 4).

Applicant respectfully disagrees. From the Applicant's reading of **Wu**, it does not appear that **Wu** discloses an extensible database of multiple file format definitions as recited in claim 1. Rather, it appears that **Wu** describes data storage containing data files of different formats such as GIF files, JPEG files, etc. (**Wu**, Col.1, lines 46-53). The IBM digital library cited in **Wu** merely contains data files of different formats. (**Wu**, Col. 10, lines 40-48). **Wu** omits, however, to disclose the use of any data storage to include multiple file format definitions.

Thus, **Wu** fails to disclose “a file-format recognizer configured to recognize the file format of the executable image from amongst a database of multiple file



format definitions, wherein the database is extensible so that additional file format definitions may be added to the database of multiple file format definitions” as recited in claim 1. (Emphasis added).

Correspondingly, **Bodrov and Wu**, either alone or in combination, fail to disclose “a file-format recognizer configured to recognize the file format of the executable image from amongst a database of multiple file format definitions, wherein the database is extensible so that additional file format definitions may be added to the database of multiple file format definitions” as recited in claim 1. (Emphasis added). Accordingly, Applicant requests the Office to withdraw its rejection of this claim.

#### Claims 3-7

These claims ultimately depend upon independent claim 1. As discussed above, claim 1 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for reasons that are independent to the reasons for the allowability of their base claim.

Claim 8:

On page 5 of the Action, the Office indicates the following with regard to this claim:

Regarding claim 8, all the limitations of these claims have been noted in the rejection of claim 1. In addition, Bodrov/ Wu discloses: A computer-readable medium having computer-executable modules comprising: a searcher configured to search a computer media for an executable image for loading (col. 7, lines 12-50, Bodrov);

a format recognizer configured to the format of the executable image (col. 4, lines 43-60, Bodrov);

a memory-mapper configured to load and map the executable image into memory based upon the format of the executable image (col. 208, fig. 2 and corresponding text, Bodrov);

a sub-loader configured to examine a data structure of the executable image to determine whether to load additional images (204 and corresponding text and col. 3m, lines 58-67, Bodrov);

In rejecting claim 8, the Office does not appear to provide the specific references in **Bodrov** or **Wu** which disclose, teach or suggest “a database of multiple executable-image formats which is the basis for which the recognizer recognizes the format of executable image and for which the memory-mapper varies how it loads and maps the executable image into memory, wherein the database is extensible so that additional executable-image formats may be recognized by the recognizer and loaded and mapped by the memory-mapper” as recited in claim 8. (Emphasis added).

Applicant respectfully notes that according to **Bodrov**, a program loader 208 copies an executable image from a storage device 105 to a memory 108. (**Bodrov**, Col. 3, lines 47-53). A validator 204 analyzes the executable image before and after loading the executable image into the memory 108. (**Bodrov**, Col. 4, lines 15-28). However, there is no mention in **Bodrov** of the storage device 105 being *extensible* so that additional executable-image formats may be recognized.

Therefore, **Bodrov** fails to disclose, teach or suggest “wherein the database is extensible” so that additional executable-image formats may be recognized” as recited in claim 8. (Emphasis added).

It does not appear that **Wu** adds anything to the missing teachings of **Bodrov**. Instead, **Wu** describes a data storage that contains only data files of different formats such as GIF files, JPEG files, etc. (**Wu**, Col. 1, lines 46-53).

As a result, **Bodrov** and **Wu**, either alone or in combination, fail to disclose “a database of multiple executable-image formats which is the basis for which the recognizer recognizes the format of executable image and for which the memory-mapper varies how it loads and maps the executable image into memory, wherein the database is extensible” so that additional executable-image formats may be recognized by the recognizer and loaded and mapped by the memory-mapper” as recited in claim 8. (Emphasis added). Accordingly, Applicant requests the Office to withdraw its rejection of this claim.

Claims 10-15

These claims ultimately depend upon independent claim 8. As discussed above, claim 8 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for reasons that are independent to the reasons for the allowability of their base claim.

Claims 16

On page 6 of the Action, the Office indicates the following with regard to this claim:

Regarding claims 16, 19 and 20, all the limitations of these claims have been noted in the rejection of claim 1. Bodrov/ Wu discloses: a method, a computer-readable medium having computer executable instructions that when executed by a computer for facilitating loading to one or more executable images a varying formats, the method comprising: locating an executable image on a computer media (col. 4, lines 34-42, Bodrov);

investigating information related to the executable image, thereby identifying the format of the executable image (col. 4, lines 37-55, Bodrov), wherein during the investigating an extensible database of executable-image formats is accessed (204, fig. 2 and corresponding text, col. 4, lines 15-28, Bodrov).

based upon the identified format of the image, initiating a loader associated with the identified format (208 fig. 2 and col. 7, lines 1-11, Bodrov); with that loader, loading the executable image into a computer memory (col. 10, lines 30-51, Bodrov).

Applicant respectfully submits that **Bodrov** and **Wu**, either alone or in combination, fail to disclose “investigating information related to the executable image, thereby identifying the format of the executable image, wherein during the investigating, an extensible database of executable-image formats is accessed” as recited in claim 16. (Emphasis added).

As noted above, the Office acknowledges that **Bodrov** does not disclose “a database of multiple file format definitions.” (Office Action, page 4). In rejecting claim 16, the Office relies on element 204, Fig.2 and corresponding text as well as (**Bodrov**, Col. 4, lines 15-28) as teaching “wherein during the investigating, an extensible database of executable-image formats is accessed.” (Office Action, page 6).

Applicant respectfully disagrees. In accordance with **Bodrov**, a program loader 208 copies an executable image from a storage device 105 to a memory 108. (**Bodrov**, Col. 3, lines 47-53). A validator 204 analyzes the executable image before and after loading the executable image into the memory 108. (**Bodrov**, Col. 4, lines 15-28). However, there is no mention of the validator or any other element investigating information related to the executable image, thereby identifying the format of the executable image, “wherein during the investigating, an extensible database of executable-image formats is accessed” as recited in claim 16. (Emphasis added).

Furthermore, Applicant respectfully submits that **Wu** does not make up for **Bodrov**’s shortcomings. Instead, **Wu** describes a normal data storage that contains only data files of different formats such as GIF files, JPEG files, etc. (**Wu**, Col. 1, lines 46-53).

As a result, **Bodrov** and **Wu**, either alone or in combination, fail to disclose “investigating information related to the executable image, thereby identifying the format of the executable image, wherein during the investigating, an extensible database of executable-image formats is accessed” as recited in claim 16.

(Emphasis added). Accordingly, Applicant requests the Office to withdraw its rejection of this claim.

Claim 18-20:

These claims ultimately depend upon independent claim 16. As discussed above, claim 16 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for reasons that are independent to the reasons for the allowability of their base claim.

Claim 21:

On page 7 of the Action, the Office indicates the following with regard to this claim:

Regarding claims 21 and 23, Bodrov/ Wu discloses: a computer-readable medium having modularized computer-executable modularized sets of instructions and an operating system comprising a medium that, when executed by the computer, load one or more executable images into a computer memory, such an image having one or more formats defined by an extensible database of executable image formats (208 and 108, fig. 2 and corresponding text, Bodrov),

Applicant respectfully submits that **Bodrov and Wu**, either alone or in combination, fail to disclose “load one or more executable images into a computer memory, such an image having one or more formats defined by an extensible database of executable-image formats” recited in claim 21. (Emphasis added).

In rejecting claim 21, the Office relies on element 208 and 108, Fig. 2 and corresponding text as teaching “load one or more executable images into a computer memory, such an image having one or more formats defined by an extensible database of executable-image formats.” (Office Action, page 7). Applicant respectfully disagrees.

As discussed above in conjunction with claims 8 and 16, **Bodrov** fails to disclose, teach or suggest “such an image having one or more formats defined by an extensible database of executable-image formats” as recited in claim 21. (Emphasis added).

**Wu** does not make up for **Bodrov**’s shortcomings. Instead, **Wu** describes a normal data storage that contains only data files of different formats such as GIF files, JPEG files, etc. (**Wu**, Col. 1, lines 46-53).

As a result, **Bodrov** and **Wu**, either alone or in combination, fail to disclose “load one or more executable images into a computer memory, such an image having one or more formats defined by an extensible database of executable-image formats” recited in claim 21. (Emphasis added). Accordingly, Applicant requests the Office to withdraw its rejection of this claim.

#### Claim 22-23

The claims ultimately depend upon independent claim 21. As discussed above, claim 21 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all



of these claims may also be allowable for reasons that are independent to the reasons for the allowability of their base claim.

### **Dependent Claims**

In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant submits that the Office withdraw the rejection of each dependent claim where its base claim is allowable.

### **Conclusion**

All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the Office is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

Dated: 10/11/2006

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